

WHAT IS CLAIMED IS:

- ✓ 1. A guide block assembly for aligning and retaining at least one fiber bore forming pin and at least one guide pin bore forming pin during a molding of a ferrule, said assembly comprises a unitary member defining at least one fiber bore and at least one guide pin bore, wherein said at least one fiber bore is created by an electric discharge machining (EDM) wire.
2. The guide block assembly of claim 1, wherein said fiber bore is formed by creating a starter hole with the EDM wire and enlarging said starter hole.
3. The guide block assembly of claim 2, wherein the starter hole is enlarged by a second EDM wire.
4. The guide block assembly of claim 2, wherein the EDM wire is connected to an EDM machine at one end.
5. The guide block assembly of claim 3, wherein the second EDM wire is connected to an EDM machine at both ends.
6. The guide block assembly as set forth in claim 1, wherein the at least one fiber bore has a length and a diameter and wherein a ratio between the length of the at least one fiber bore to its diameter is approximately 3::1 to 10::1.
7. The guide block assembly as set forth in claim 6, wherein the ratio between the length of the at least one fiber bore to its diameter is approximately 4::1 to 8::1.
8. The guide block assembly as set forth in claim 7, wherein the ratio between the length of the at least one fiber bore to its diameter is approximately 6::1.

9. The guide block assembly as set forth in claim 1, further defining an open cavity behind the at least one fiber bore.
10. The guide block assembly as set forth in claim 1, further comprising a front face wherein the front face is altered to form a non-rectilinear surface.
11. The guide block assembly as set forth in claim 1, wherein a plurality of longitudinal slots are formed around the fiber bore.
12. A method for fabricating a guide block assembly defining at least one fiber bore for aligning and retaining at least one fiber bore forming pin during a molding of a ferrule, said method comprises the steps of:  
securing a blank to a wire electric discharge machining (EDM) machine;  
forming at least one starter hole in said blank with a wire attached at one end to the EDM machine; and  
enlarging the at least one starter hole to a predetermined size and dimension of the at least one fiber bore.
13. The method as set forth in claim 12, wherein the enlarging step comprises the steps of:  
threading a second wire through the at least one starter hole; and  
connecting both ends of the second wire to the EDM machine to enlarge the at least one starter hole.
14. The method as set forth in claim 12, further comprising the step of forming a non-rectilinear surface on a front surface of the guide block assembly after the at least one fiber bore is formed.
15. The method as set forth in claim 12, further comprising the step of providing an open cavity behind the at least one fiber bore.

16. A guide block assembly for aligning and retaining at least one fiber bore forming pin and at least one guide pin bore forming pin during a molding of a ferrule, said assembly comprises a unitary member defining at least one fiber bore and at least one guide pin bore, wherein the at least one fiber bore is spaced apart from the at least one guide pin bore and spaced apart from edges of the unitary member.
17. The guide block assembly as set forth in claim 16, wherein the at least one fiber bore was connected to an adjacent fiber bore by a path during the manufacturing process and wherein the path is filled thereafter to form spaced apart fiber bores.
18. The guide block assembly as set forth in claim 16, wherein the at least one fiber bore has a length and diameter and wherein a ratio between the length of the at least one fiber bore to its diameter is approximately 3::1 to 10::1.
19. The guide block assembly as set forth in claim 18, wherein the ratio between the length of the at least one fiber bore to its diameter is approximately 4::1 to 8::1.
20. The guide block assembly as set forth in claim 19, wherein the ratio between the length of the at least one fiber bore to its diameter is approximately 6::1
21. The guide block assembly as set forth in claim 16, further defining an open cavity behind the at least one fiber bore.
22. The guide block assembly as set forth in claim 16, further comprising a front face wherein the front face is altered to form a non-rectilinear surface.
23. The guide block assembly as set forth in claim 16, wherein a plurality of longitudinal slots are formed around the at least one fiber bore.